



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

MAR 20 1997

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EPA Region 5 Records Ctr.



243459

REPLY TO THE ATTENTION OF:

MEMORANDUM

SUBJECT: ACTION MEMORANDUM - Request for an Emergency Removal Action at the IPC-TDF Tire Fire, Cahokia, St. Clair County, Illinois (Site ID #A587)

FROM: Leonard Zintak and Fred Micke, On-Scene Coordinators
Emergency Response Branch - Section 3

Leonard Zintak
Fredrick A. Micke

TO: Richard Karl, Chief
Emergency Response Branch

THRU: Frank Rollins, Chief *Frank Rollins*
Response Section 3

I. PURPOSE

The purpose of this memorandum is to request and document your approval to expend up to \$60,000 in order to abate a substantial threat to public health and the environment posed by a large tire fire at the IPC-TDF site in the Cities of Cahokia and Sauget, St. Clair County, Illinois (hereinafter referred to as the IPC Site). This memorandum also seeks to confirm the verbal authorization of \$60,000 provided by the Acting Branch Chief of the Emergency Response Branch on February 14, 1997. This emergency response action involved extinguishing burning tires by capping with soil. Specifically, the emergency response action involved the use of heavy equipment to extinguish the fire by covering the burning material with soil from the site.

The emergency response action abated the release of contaminants including benzene, ethylbenzene, toluene, and xylenes (BETX) compounds and other volatile organics, metals, poly-aromatic-hydrocarbons (PAHs), particulates, and other by-products of tire combustion and pyrolysis. This response action was performed under Section 104 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

This site is not on the National Priorities List.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID # ILO 001 892 447

The emergency response action at the IPC site, involved a tire fire, and was located approximately 2 miles southeast of St. Louis, Missouri, approximately 1 mile south of Interstate 55, in the Cities of Cahokia and Sauget, St. Clair County, Illinois (N 38°35'19", W 90°10'36"). The IPC site is an approximately 10-acre property that consisted of a building with a loading dock, and approximately 30,000 cubic yards of shredded tires staged on a 10-acre parcel. The tires were in piles that measured approximately 100 yards by 50 yards by 20 feet in height. The site is currently owned by Empire Chemical Reality, Inc.

The IPC site is in a residential area with light and heavy industry. The site is bordered by residences located approximately 1000 feet to the east of the site. Industrial property surrounds the site and the City of St. Louis is located across the Mississippi River to the north.

IPC is an active tire recycling facility. On February 13, 1997, at approximately 1700 hours, a tire fire was ignited by an unknown source. The Cahokia and Sauget Fire Departments responded to the fire at approximately 1730 hours. The fire departments attempted to extinguish the fire with water until approximately 2300 hours on February 13. This attempt was unsuccessful and further attempts to extinguish the fire were suspended.

The Cahokia Fire Department contacted the Illinois Environmental Protection Agency (IEPA) at approximately 0030 hours on February 14. IEPA contacted the United States Environmental Protection Agency (U.S. EPA) shortly thereafter to request assistance.

U.S. EPA On-Scene Coordinators (OSC) Len Zintak and Fred Micke responded to the call and arrived on site at 0900 hours on February 14. At that time, the tire pile was actively burning. Upon arriving on site, OSC's Len Zintak and Fred Micke met with the Cahokia Fire Chief (Incident Commander), and determined that the best way to approach the fire was by capping the burning tire pile using soil and heavy equipment.

The Superfund Technical Assistance and Response Team (START) contractor conducted air monitoring on smoke being generated by the burning and smoldering tire piles. Monitoring results indicated that particulates being generated by the smoke in the immediate area of the fire were above site action standards based on National Institute for Occupational Safety and Health guidelines. The smoke was being blown off site and into nearby residential areas. The OSCs determined that the nature of the smoke and its impact on the local residents needed to be determined and monitored on an ongoing basis (the air monitoring results can be found in the administrative record).

OSC Cindy Nolan and assistant OSC Keith Lesniak mobilized to the site to assist due to the

fact that the response operations were to run on a 24-hour basis. In addition, three START members were utilized.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

The emergency response action at the IPC site was undertaken to abate the threat to public health and the environment posed by the ongoing release of by-products of tire combustion and pyrolysis. The National Contingency Plan (NCP) provides specific criteria for evaluation of a threat and the appropriateness of a removal action in 40 C.F.R. § 300.415.

The IPC site meets the NCP criteria for a emergency removal action. Observations documented during this response apply to subsections (i, v, vi):

i) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;

BETX and other volatile organic compounds, metals, poly-aromatic-hydrocarbons, particulates, and other by-products of tire combustion and pyrolysis were being released into the air and soil as a result of the fire. The fire encompassed approximately 3 acres and 30,000 cubic yards of burning tires. A large plume of smoke emanated from the fire and through parts of the surrounding community. There are over 1400 people living within a 1-mile radius of the site. Downtown St. Louis, Missouri is located approximately 3 mile north of the site.

v) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;

The smoke from the fire was an uncontrolled release and the smoke plume was being manipulated by the prevailing winds. During the fire, the wind direction was from west to east. The smoke plume threatened Mississippi Avenue, a commercial area, and a residential area east of the site. Oil runoff caused by the pyrolysis and partial combustion of the shredded tires caused soil contamination which could migrate if heavy rainfall were to occur.

vi) Threat of fire or explosion;

The tire pile was on fire and the adjacent building which contained thousands of additional tires could have been threatened by the fire.

IV. ENDANGERMENT DETERMINATION

Given the actual release of BETX and other volatile organic compounds, metals, poly-

aromatic-hydrocarbons, particulates, and other by-products of tire combustion and pyrolysis, and the potential exposure pathways to nearby populations described in Sections II and III above, failure to implement the emergency action set fourth in this Action Memorandum may have resulted in an imminent and substantial endangerment to public health, or welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

The response actions described in this Action Memorandum directly addressed actual releases of BETX compounds and other volatile organic compounds, metals, poly-aromatic-hydrocarbons, particulates, and other pollutants at the site which posed an imminent and substantial endangerment to public health or welfare or the environment. Emergency response activities at the site included: extinguishing the burning tires; monitoring and analyzing air emissions from the fire; and analyzing water and soil samples. Specifically, the following removal activities were accomplished:

- 1) Develop and implement a site Health and Safety Plan;
- 2) Develop and implement an air monitoring program; and
- 3) Extinguish the fire by capping the burning material with on-site soil.

Emergency response activities under this Action Memorandum required approximately 3 on-site working days to complete. The threats posed by identified hazardous waste materials met the criteria listed in 40 C.F.R. § 300.415(b)(2) of the NCP and were consistent with the removal action performed.

The OSCs have planned for the provision of post-emergency site control, consistent with the provisions of 40 C.F.R. § 300.415(k) of the NCP. The site will be turned over to IEPA for site characterization and possible remediation.

The response actions described in this memorandum directly address actual or threatened releases of hazardous substances, pollutants, or contaminants at the site which posed an imminent and substantial endangerment to public health and safety and the environment. These response actions did not impose a burden on the affected property disproportionate to the extent to which that property contributed to the conditions being addressed.

The detailed cleanup contractor costs are presented in Attachment 1 and estimated project costs are summarized below:

REMOVAL PROJECT CEILING ESTIMATE

EXTRAMURAL COSTS:

Cleanup Contractor Costs	\$ 60,000
Contingency (20%)	12,000
Subtotal	<u>\$ 72,000</u>
Total START, including multiplier	8,000
Extramural Subtotal	<u>\$ 80,000</u>
Extramural Contingency (15%)	<u>\$ 12,000</u>
TOTAL, EXTRAMURAL COSTS	<u>\$ 92,000</u>

INTRAMURAL COSTS:

U.S. EPA Direct Costs	
\$30 x (100 Regional hours plus 10 HQ hours)	\$ 3,500
U.S. EPA Indirect Costs	
(\$65 x 100 Regional hours)	<u>\$ 6,500</u>
TOTAL, INTRAMURAL COSTS	<u>\$ 10,000</u>

TOTAL REMOVAL PROJECT CEILING ESTIMATE: \$ 102,000

All applicable or relevant and appropriate requirements (ARARs) will be complied with to the extent practicable.

Emergency response activities performed pursuant to this Action Memorandum shall, to the extent practicable considering the exigencies of the situation, attain ARARs identified by the Illinois EPA. The OSCs have been in coordination with Tom Powell of IEPA, concerning this site.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delayed or non-action would have resulted in the increased likelihood of direct contact threat to human or wildlife populations accessing the site and the possible degradation of local groundwater and surface water conditions. There was the possibility that there would have been an increased risk of exposure to substances from the fire if the tires had been left to burn.

VII. OUTSTANDING POLICY ISSUES

Local officials may be requesting the \$25,000 reimbursement to local governments from Superfund to offset local expenditures incurred while fighting the fire.

VIII. ENFORCEMENT

For administrative purposes, information concerning the enforcement strategy for this site is contained in an Enforcement Confidential Addendum.

IX. RECOMMENDATION

This decision document represents the selected removal action for the IPC Site, Cahokia, St. Clair County, Illinois, developed in accordance with CERCLA as amended, and is not inconsistent with the NCP. This decision is based on the Administrative Record for the site. Conditions at the site meet the NCP, 40 C.F.R. § 300.415 (b) (2) criteria for a removal and I recommend your approval of this emergency removal action. The total project ceiling, if approved, will be \$ 102,000. Of this, an estimated \$84,000 may be used for cleanup contractor costs. You may indicate your decision by signing below.

APPROVAL: Richard C Karl DATE: 3-20-97
Chief, Emergency Response Branch

DISAPPROVAL: _____ DATE: _____
Chief, Emergency Response Branch

Confidential Enforcement Addendum**Attachments**

1. Cleanup Contractor Cost Estimate
2. Index of the Administrative Record

cc: K. Mould, U.S. EPA, OERR, 5202-G
D. Henne, U.S. Dept. of the Interior
J. O'Brien, Illinois Environmental Protection Agency

BCC: BLIND CARBON COPY LIST
1 PAGE

REDACTED

NOT RELEVANT TO THE SELECTION OF THE REMOVAL ACTION

ENFORCEMENT CONFIDENTIAL ADDENDUM
MARCH 1997
ENFORCEMENT SENSITIVE
1 PAGE

REDACTED

NOT RELEVANT TO THE SELECTION OF THE REMOVAL ACTION

ATTACHMENT 1

DETAILED CLEANUP CONTRACTOR COST ESTIMATE
IPC-TDF SITE
ST. CLAIR COUNTY, ILLINOIS

FEBRUARY 1997

The estimated cleanup contractor costs are as follows:

Personnel	\$ 30,000
Equipment	15,000
Materials	5,000
Subcontractors	<u>10,000</u>
Total	\$ 60,000

ATTACHMENT 2
U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION

ADMINISTRATIVE RECORD
FOR
IPC-TDF TIRE FIRE SITE
CAHOKIA, ST. CLAIR COUNTY, ILLINOIS

ORIGINAL
MARCH 12, 1997

<u>NO.</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
1	02/16/97	Zintak, L., Micke, F., and C. Nolan; U.S. EPA	Distribution List	Pollution Report (POLREP) #1	3
2	00/00/00			Analytical Data (PENDING)	
3	00/00/00	Zintak, L. and F. Micke; U.S. EPA	Karl, R., U.S. EPA	Action Memorandum: Request for an Emergency Removal Action at the IPC- TDF Tire Fire Site (PENDING)	

REMOVAL COST PROJECTION SPREADSHEET
5 PAGES

REDACTED

NOT RELEVANT TO THE SELECTION OF THE REMOVAL ACTION